National Institute of Environmental Health Sciences

A simple method for estimating excess mortality due to heat waves, as applied to the 2006 California heat wave

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Year: 2010
Journal: International Journal of Public Health. 55 (2): 133-137

Abstract:

OBJECTIVES: To characterize excess mortality during a major heat wave in California and its regions; to assess the validity of a simple method. METHODS: We calculated mortality rate ratios for the heat-wave period, using a reference period of the same number of days from the same summer. We conducted alternative analyses and compared our results with those from a time-series model. RESULTS: We estimated 655 excess deaths, a 6% increase (95% confidence interval, 3-9%), impacting varied geographic/climate regions. Alternate analyses supported model validity. CONCLUSIONS: California experienced excess heat-wave related mortality not restricted to high heat regions. As climate change is anticipated to increase heat events, public health efforts to monitor effects assume greater importance.

Source: http://dx.doi.org/10.1007/s00038-009-0060-8

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

Desert, Rural, Urban

Geographic Location:

resource focuses on specific location

United States

Health Impact:

specification of health effect or disease related to climate change exposure

Morbidity/Mortality

Resource Type:

format or standard characteristic of resource

Research Article, Research Article

Timescale:

time period studied

Time Scale Unspecified